FAUC 213

Cat. No.: HY-14327

CAS No.: 337972-47-1

Molecular Formula: $C_{18}H_{19}ClN_4$

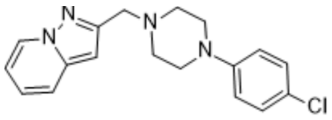
Molecular Weight: 326.82

Target: Dopamine Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (305.98 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.0598 mL	15.2989 mL	30.5979 mL
	5 mM	0.6120 mL	3.0598 mL	6.1196 mL
	10 mM	0.3060 mL	1.5299 mL	3.0598 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 1.25 mg/mL (3.82 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1.25 mg/mL (3.82 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.25 mg/mL (3.82 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

FAUC 213 is an orally active and highly selective dopamine D_4 receptor complete antagonist with a K_i of 2.2 nM for $hD_{4.4}$. FAUC 213 has less activity on D_2 and D_3 receptors (K_is of 3.4 μM, 5.3 μM for hD_2, hD_3, respectively). FAUC 213 can cross the blood-brain barrier (BBB). FAUC 213 exhibits atypical antipsychotic characteristic[1].

IC_{50} & Target			
	$hD_{4.4}$ Receptor	hD_2 Receptor	hD_3 Receptor
	2.2 nM (Ki)	3.4 μM (Ki)	5.3 μM (Ki)

In Vitro	FAUC 213 inhibits p5-HT$_1$ (K_i=1.2 μM)、p5-HT$_2$ (K_i=0.52 μM)、pα$_1$ (K_i=0.27 μM)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	FAUC 213 (7.5-30 mg/kg; orally; single dose) significantly reduces this elevation in AMPH-induced locomotor hyper-activity only pre-treatment with 30 mg/kg. FAUC 213 significantly restores the prepulse inhibition (PPI) reduction caused by the apomorphine (APO) treatment with 30 mg/kg[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male adult Wistar rats weighing 300-350 g[1]
Dosage:	7.5, 15, 30 mg/kg
Administration:	Orally; single dose
Result:	Significantly reduced this elevation in amphetamin (AMPH)-induced locomotor hyper-activity only pre-treatment with 30 mg/kg.

REFERENCES

[1]. Frank Boeckler, et al. FAUC 213, a highly selective dopamine D4 receptor full antagonist, exhibits atypical antipsychotic properties in behavioural and neurochemical models of schizophrenia. Psychopharmacology (Berl). 2004 Aug;175(1):7-17.

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